

REMARKS

INTRODUCTION:

In accordance with the foregoing, claim 17 has been cancelled and claims 1, 2, 10 and 18 have been amended. Support for the claim amendments may be found at least at FIG. 3 and therefore no new matter has been added.

Claims 1-16 and 18 are pending and under consideration. Claims 1, 2, 10, and 18 are independent claims. Reconsideration of the claims in light of the present amendments and the following remarks is respectfully requested.

ALLOWABLE SUBJECT MATTER:

Claims 8, 14, 16 and 17 are objected to but are indicated as allowable if rewritten in independent form. Applicants will hold the rewriting of these claims in abeyance until the arguments presented herein have been considered.

CLAIM OBJECTIONS:

Claim 1 stands objected to due to certain informalities.

The claim has been amended to address the objections and to clarify the recitations. Accordingly, it is respectfully requested these objections be withdrawn.

REJECTIONS UNDER 35 USC 102:

Claims 1, 2, 3, 5, 6 and 9 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 7,054,169 to Huh et al. ("Huh"). Claims 2, 4, 7, 10, 11, 12, 13, 15 and 18 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,961,647 to Kim et al. ("Kim"). The rejections are respectfully traversed.

Amended independent claim 2 recites at least the following:

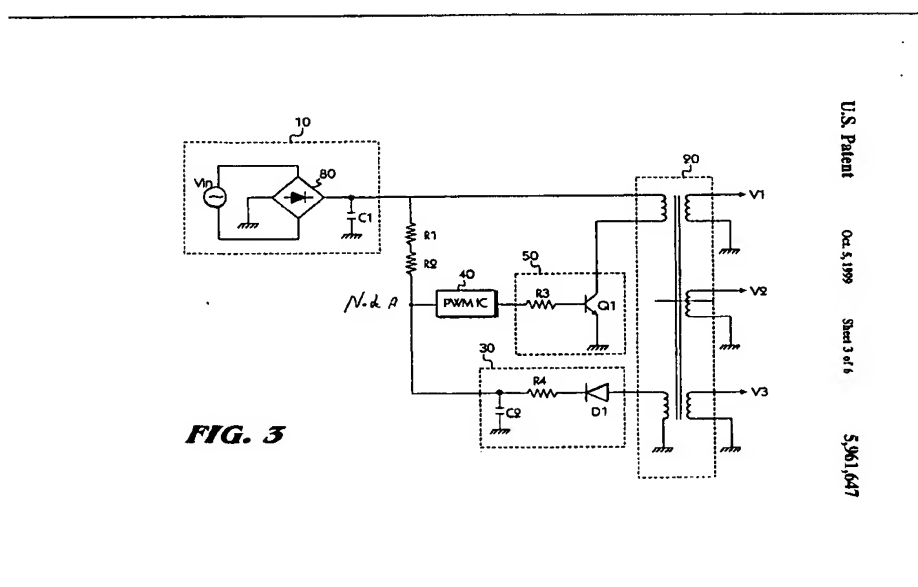
a power switching unit including a pulse width modulation-integrated circuit (PWM-IC) having an input driven by the AC power and being switched on and off to control provision of the DC power to the electronic machine when the host requests provision of DC power to the electronic machine;

Huh and Kim, taken separately or in combination, fail to suggest or disclose all of the above-recited features of amended independent claim 2.

The Office Action asserts that "Figure 3 of Kim clearly shows a single AC input power driving the device [and] that this single AC source (V_{in}) therefore drives the entire circuit, including the PWM-IC (40)."

Applicants have clarified the claim to recite a PWM-IC "having an input driven by the AC power."

Referring to FIG. 3 of Kim below, it can be seen that the input of PWM-IC 40 (marked as Node A) receives and is driven by rectified and smoothed DC power output from rectifier circuit 10 via resistors R1 and R2, and not by AC power.



Further, Kim states at col. 6, lines 45-52:

"In a power supply circuit as described above, alternating current AC power supply V_{in} applied at input terminals is rectified by rectifier circuit 10, and then applied to an input terminal of first primary windings of transformer 20. A voltage supply rectified is voltage-dropped by serially connected resistors R1 and R2 and is applied to a driving voltage input terminal V_{cc} of pulse width modulation integrated circuit PWM-IC 40 so as to enable an operational function thereof"

Thus, the cited portion of Kim also describes providing a rectified signal to a driving voltage input terminal V_{cc} of pulse width modulation integrated circuit PWM-IC 40. Consequently, Kim fails to describe all of the above-recited features.

Referring now to Huh, the Office Action asserts at page 2 that Huh illustrates and describes a PWM-IC at MOS 330 of FIG. 5. However, the input of MOS330 is V_{cc} , which is

driven by rectified and smoothed DC power output from first power converter 310 via coil 310, diode D320 and capacitor 320, and not by AC power. Therefore, Huh also fails to describe a PWM-IC “having an input driven by the AC power.”

Moreover, the Office Action asserts that Huh describes a PWM-IC, at col. 9, lines 15-26, where Huh describes “a general MOSFET switching transistor and a switched-mode power supply supporting burst-mode...”

To the contrary, Applicants assert that neither a MOSFET switching transistor nor a switched-mode power supply supporting burst-mode necessarily suggest a PWM-IC. A PWM-IC is a device that generates adjustable frequency, pulse-width-modulated, control pulses that drive the power transistors of switching regulator power supplies. Pulse-width modulation uses a square wave whose duty cycle is modulated resulting in the variation of the average value of the waveform. Although Huh mentions duty control (which the Office Action asserts is a synonym for “duty cycle”), the cited portion of Huh fails to describe modulating the duty cycle.

Still further, Applicant’s respectfully submit that the Office Action has not provided sufficient evidence to demonstrate that pulse width modulation is inherent to a MOSFET switching transistor. If an assertion of inherency is to be relied upon in any future Office Action, Applicants respectfully request the rejection provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied reference, as required by MPEP 2112 IV.

Accordingly, Applicants respectfully submit that independent claim 2 patentably distinguishes over Kim and Huh, and should be allowable for at least the above-mentioned reasons. Since similar features recited by independent claims 1, 10, and 18, with potentially differing scope and breadth, are not suggested or disclosed by Kim and Huh, the rejection should be withdrawn and claims 1, 10, and 18 also allowed.

Further, Applicants respectfully submit that claims 3-8, 9 and 11-16, which variously depend from independent claims 1, 2, 10, and 18, should be allowable for at least the same reasons as claims 1, 2, 10, and 18, as well as for the additional features recited therein.

REQUEST FOR ENTRY IN ACCORDANCE WITH 37 CFR 1.116:

Entry of this Amendment in accordance with 37 CFR 1.116 is respectfully requested because the enclosed amendments comply with requirements of form expressly set forth in the previous Office Action and present the rejected claims in better form for consideration on appeal.

REQUEST FOR INTERVIEW:

Applicants respectfully request the Examiner contact the undersigned attorney to discuss the pending claims before issuance of the next Office Action. Applicants believe that a thorough review of the pending claims will be helpful in furthering prosecution.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.


Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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